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10/510,646	11/24/2004	Yasuyuki Imaizumi	121381	3935
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EXAMINER				
YAGER, JAMES C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/510,646

Applicant(s)

IMAZUMI, YASUYUKI

Examiner

JAMES YAGER

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed 21 March, 2008 has been entered. Claims 1-17 are pending in the application.
2. The objection to the abstract for informalities is withdrawn in light of the amendment.
3. The objection to claims 11 and 12 for informalities is withdrawn in light of the amendment.
4. The amendment filed 21 March, 2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "another layer" and "predetermined width".

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. While there is support in the present specification to recite that the projecting portion or portions are formed on a specific layer, i.e. the outer layer, there is no support to broadly recite that the projecting portion or portions are formed on "another layer" which encompasses any layer present including those which are not the outer layer.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The term "predetermined width" in claim 1 is a relative term which renders the claim indefinite. The term "predetermined width" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

10. Claim 8 recites the limitation "outer layer" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 3-5, 8, 10-12, 14, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatayama et al. (JP 61-8544, see translation).

Regarding claim 1, Hatayama discloses a laminated tube having another layer (Fig. 3, 11b) laminated on a substrate layer (Fig. 3, 11a) that makes up the main body of said tube, wherein a projecting portion or portions extending all the way down the tube in the axial direction is/are formed on said another layer (Fig 1 and Fig. 3, 22). The American Heritage Dictionary of the English Language: Fourth Edition defines laminate as “to make by uniting several layers”. Because Hatayama discloses layers that are united (Fig. 3, 11a and 11b), the examiner’s position is that Hatayama discloses a laminated tube.

Regarding claims 3-5, 8 and 10-12, Hatayama discloses all of the claim limitations as set forth above. Regarding claim 3, Hatayama further discloses a laminated tube wherein the projecting portion is linear (Fig. 1, 22). Regarding claim 4, Hatayama further discloses wherein a multiple number of projecting portions are

disposed (Fig. 1, 22). Regarding claim 5, Hatayama further discloses wherein a pair of projecting portions is disposed axissymmetrically in the cross-sectional view (Fig. 5 and Fig. 6, The stamping rollers (18) form the projecting portions axissymmetrically in the cross-sectional view). Regarding claim 8, Hatayama further discloses wherein said another layer having or consisting of projecting portions gives a graded effect caused by the change in thickness of the laminated another layer (translation, para 10, because the colors of the base layer and the another layer differ and the another layer is translucent, the thickness variation in the another layer generates complex changes in hues which can be seen through the another layer.)

The examiner's position is that the changes in hues described above constitute a graded effect.

Regarding claim 10, Hatayama further discloses wherein the main body of said tube and the another layer have different colors (see translation para 10, The colors of the base layer resin (11a) and the surface resin (11b) differ.) Regarding claim 11, Hatayama further discloses wherein said projecting portion or portions are spirally disposed (Fig. 3, 22). Regarding claim 12, Hatayama further discloses wherein said projecting portions have a wave form (Fig. 2, (C)).

Regarding claim 14, Hatayama discloses all of the claim limitations as set forth above. Hatayama further discloses a molded tube product (translation para 4, hot-press molded) wherein said tube is cut to a given length , flattened and sealed at one end, and is provided with a head portion of a shoulder and a neck at the other end (Fig. 1).

Regarding claim 16, Hatayama discloses all of the claim limitations as set forth above. Hatayama further discloses that the projecting portion has an axially uniform thickness (Fig. 3, Fig. 5 and Fig. 6, It appears that the projections will be of the same thickness as those axial to them).

Regarding claim 17, Hatayama discloses all of the claim limitations as set forth above. Given that the projecting portion is in the same position and the article of Hatayama is stably maintained in the form of a tube, it is clear that the projecting portion must be acting as a backbone.

13. Claims 1, 3-5 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Redmond (2001/0030192).

Regarding claim 1, Redmond discloses a laminated tube having another layer laminated ([0009]) on a substrate layer that makes up the main body of said tube, wherein said another layer has or consists of a projecting portion extending all the way down the tube in the axial direction (Fig. 8B and 9B).

Regarding claims 3-5, Redmond discloses all of the claim limitations as set forth above. Regarding claim 3, Redmond further discloses a laminated tube wherein the projecting portion is linear (Fig. 8B). Regarding claim 4, Redmond further discloses wherein a multiple number of projecting portions are disposed (Fig. 8B). Regarding claim 5, Redmond further discloses wherein a pair of projecting portions is disposed axissymmetrically in the cross-sectional view (Fig. 8B).

Regarding claim 15, Redmond discloses all of the claim limitations as set forth above. Redmond further discloses a molded tube product ([0021], formed by injection

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molding) comprising the laminated tube according to claim 1 ([0003], [0009], dispenser package made of laminated plastics and foils) wherein said tube is cut to a given length, flattened and sealed at both ends (Fig. 1A).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 6-7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatayama et al. (JP 61-8544).

Regarding claims 6 and 7, Hatayama discloses all of the claims limitations as set forth above, but the reference does not explicitly disclose the projecting portions having different widths nor an even number of projecting portions is disposed at equal intervals. Since the instant specification is silent to unexpected results, the widths of the

projecting portions and the precise number and interval of disposition of the projecting portions are not considered to confer patentability to the claims. As the ornamentation of the tube is a variable that can be modified, among others, by adjusting said width of the projecting portions or by adjusting said number and disposition of the projecting portions, varying the widths or the number and disposition of the projecting portions would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed variation of widths or number and disposition of the projecting portions or cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the widths or number and disposition of the projecting portions in Hatayama to obtain the desired ornamentation (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

Regarding claim 13, Hatayama discloses all of the claims limitations as set forth above, but the reference does not explicitly disclose wherein each projecting portion has a different color. Hatayama does disclose that the substrate layer and the another layer are different colors (translation, para 10). It is noted that, at the time of the invention, it was known that by using different colors, a desired aesthetic result is achieved. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a tube wherein each projecting portion has a different

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color because there was a reasonable expectation that doing so would achieve the desired aesthetic value of the tube.

17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatayama (JP 61-8544), as applied to claim 1 above, in view of Haefner et al. (US 3,940,001).

Regarding claim 2, Hatayama discloses all of the claim limitations as set forth above. Hatayama does not disclose wherein said substrate layer is flexible while said another layer is harder than said substrate layer.

Haefner discloses a laminated tube (C4/L44-50, Fig 4., container having laminated walls) having another layer laminated on a substrate layer that makes up the body of said tube wherein said substrate layer is flexible while said another layer is harder than said substrate layer (C5/L40-45, C3/L35-37, thin, flexible, inner fluid-barrier lamina and a rigid outer load-bearing lamina). The American Heritage Dictionary of the English Language: Fourth Edition defines tube as "A small flexible cylindrical container sealed at one end and having a screw cap on the other, for pigments, toothpaste or other pastelike substances". Because Haefner discloses a small flexible cylindrical container sealed at one end and having a screw cap on the other, for pigments, toothpaste or other pastelike substances (Fig. 4), the examiner's position is that Haefner discloses a tube.

Haefner discloses that the container exhibits outstanding burst, impact, creep and tensile strength (C3/L40-42).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the flexible substrate and another layer that is harder than said substrate layer of Haefner into the laminated tube of Hatayama to provide a tube that exhibits outstanding burst, impact, creep and tensile strength. In addition, one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the flexible substrate and another layer that is harder than said substrate layer of Haefner into the laminated tube of Hatayama with a reasonable expectation of success because the flexible substrate and another layer that is harder than said substrate layer of Haefner was successfully used in an analogous invention.

18. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatayama (JP 61-8544), as applied to claim 1 above, in view of Kincaid (US 4,196,825).

Regarding claim 9, Hatayama discloses all of the claim limitations as set forth above. Hatayama does not disclose wherein the substrate layer is made of an aluminum-laminated material. Kincaid discloses laminated tube having an outer layer laminated on a substrate layer that makes up the body of said tube wherein the substrate layer is made of an aluminum-laminated material (C1/L60-65).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the aluminum-laminated material substrate of Kincaid into the laminated tube of Hatayama with a reasonable expectation of success because the laminate disclosed by Kincaid was successfully used in an analogous invention. Doing so would amount to nothing more than a use of a known material for its intended use in a known environment to accomplish an entirely expected result.

Response to Arguments

19. Applicant's arguments, see page 5 para 4-6, filed 21 March, 2008, with respect to the rejection of claim 2 under 35 U.S.C. §112, second paragraph as being indefinite, have been fully considered and are persuasive. The rejection of claim 2 has been withdrawn.

20. Applicant's arguments filed 21 March, 2008 have been fully considered but they are not persuasive. Applicant argues:

Hatayama does not teach or suggest every claimed feature of independent claim 1. Hatayama does not teach or suggest "[a] laminated tube ... [and] a projecting portion or portions extending all the way down the tube in an axial direction is/are formed on said another layer at a predetermined width," as recited in independent claim 1 (emphasis added).

Further, the pattern 22 of Hatayama does not extend the entire length of the tube 22 in the axial direction, as recited in independent claim 1. Fig. 4 of Hatayama shows the pattern 22 as a broken array of pieces and thus the pattern does not continuously extend the entire length of the tube 22. Therefore, Hatayama does not teach a projecting portion extending all the way down the tube, as recited in independent claim 1.

The argument is not persuasive because Hatayama discloses all elements of the claim as set forth above. Additionally, Hatayama discloses that the projecting portion or portions extend all the way down the tube in an axial direction (Fig. 1).

There is no requirement in the present claims that the pattern "continuously" extend the length of the tube, only that the projecting portions extend all the way down the tube, which is clearly shown in Hatayama (Fig. 1 and 4). Further, even if the claims were amended to say that the pattern continuously extended the length of the tube,

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examiner's position is that Hatayama would still apply because as seen in Fig. 1 and 4, the pattern continuously extends the length of the tube.

21. Applicant argues:

The Office Action asserts on page 3 that the tube of Hatayama is laminated because of a dictionary definition that "defines laminate as 'to make by uniting several layers'". Because Hatayama discloses layers that are united (Fig. 3, 1 la, 1 lb), the examiner's position is that Hatayama discloses a laminated tube" (emphasis added). However, the tube of Hatayama is not united, as asserted in the Office Action. Rather, the relief pattern 22 is made of a different layer than the tube 11 on which the pattern is applied (see Fig. 4 of Hatayama). Therefore, Hatayama does not disclose a united, laminated tube, as recited in independent claim 1.

The argument is not persuasive because the layers of the tube of Hatayama are clearly united. The term "united" does not require that the tube be of one continuous layer, and therefore does not exclude multiple layers that are brought together to form a single entity.

22. Applicant argues:

Also, Hatayama does not disclose a portion that projects from the another layer, as recited in independent claim 1. As seen in Fig. 3 of Hatayama, the relief band pattern 22 (i.e., the alleged projecting portion) projects from the base layer resin 11a (i.e. the alleged substrate layer). The relief band pattern does not extend beyond the outermost surface of the surface layer resin 11c (i.e., the alleged another layer). Therefore, Hatayama does not teach or suggest a projecting portion that projects from the another layer, as recited in independent claim 1.

The argument is not persuasive because as set forth above, Hatayama discloses that the projecting portion projects from the surface layer 11b, not base layer 11a.

23. Applicant argues:

Redmond does not teach or suggest every claimed feature of independent claim 1. Redmond does not teach or suggest "a projecting portion or portions extending all the way down the tube in an axial direction is/are formed on said another layer at a predetermined width," as recited in independent claim 1.

Redmond merely relates to a dispenser package and outlet forming structure (see Abstract of Redmond). The Office Action asserts that Fig. 8B discloses the claimed projecting portion. However, this figure merely discloses a side view of a pouch container (see paragraph [0033] of Redmond). This portion does not project from an another layer, nor does it extend the entire axial length of a tube. It is merely an end seal of the package. Accordingly, Redmond does not teach or suggest a projecting portion extending the entire length of the tube, as recited in independent claim 1.

The argument is not persuasive because Redmond teaches that the projecting portion extends all the way down the tube in an axial direction and projects from the another layer as seen in Fig. 8b or more clearly in Fig. 9b extending all the way down the tube. Examiner agrees with applicant's assertion that the projecting portion referred to in Redmond is the seal of the package. However, this does not change the fact that the seal is also a projecting portion extending all the way down the tube in the axial direction formed on said another layer.

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES YAGER whose telephone number is (571)270-3880. The examiner can normally be reached on Mon - Thurs, 7:30am-5pm, EST, Alt. Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY 5/22/08

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794